

Atrial Fibrillation

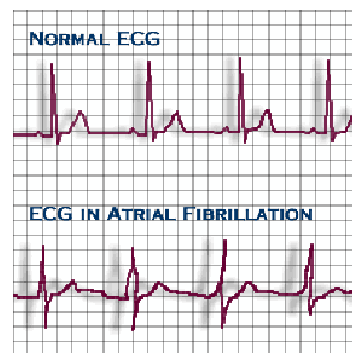
What is atrial fibrillation?

Atrial fibrillation is a heart rhythm disturbance. It causes an irregular and sometimes very fast heartbeat. It occurs when the upper chambers of the heart, called atria, contract in a rapid, uncoordinated way.

How does it occur?

An electrical impulse within your heart starts its pumping motion. Normally, this impulse for each heartbeat begins in the right atrium of the heart. It then moves along a tissue pathway to the lower chambers of the heart (the ventricles).

In atrial fibrillation the usual sequence of events is altered. The normal coordinated contraction (squeezing) of the heart chambers does not occur. The atrial muscles tend to quiver and do not coordinate with the ventricular contractions. This loss of coordination affects the ability of the heart to pump blood. It also causes an increase in your heart rate.



Common causes of atrial fibrillation are:

- ♦ heart disease, including coronary heart disease, heart enlargement due to many years of high blood pressure, and congestive heart failure from other causes
- ♦ damage to the mitral valve (located between the upper and lower left heart chambers) usually due to rheumatic fever, or mitral valve prolapse, a malfunction of the valve.

Other causes of atrial fibrillation include:

- ♦ an overactive thyroid gland
- ♦ pneumonia
- ♦ chronic lung disease
- ♦ heavy drinking of alcohol
- ♦ some medications, such as theophylline.

Sometimes no cause for the fibrillation can be found.

What are the symptoms?

The most common symptoms are:

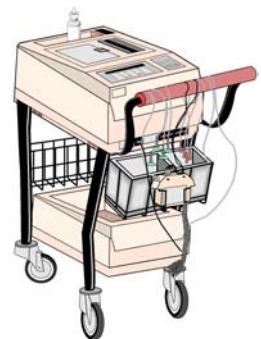
- ♦ irregular heartbeat
- ♦ fast heart rate
- ♦ weakness
- ♦ fatigue
- ♦ shortness of breath.

Some people may have chest pain. When atrial fibrillation affects the pumping of your heart, your blood pressure may fall and you may feel lightheaded or faint. Occasionally, the first symptom is a stroke, caused by a blood clot that formed in the fibrillating atrium and traveled to the brain.

Some people have no symptoms.

How is it diagnosed?

Your health care provider will ask about your symptoms and examine you. The diagnosis can be confirmed with an electrocardiogram (ECG). An ECG measures the electrical activity of your heart. It will show a special pattern for atrial fibrillation. Your provider will use your medical history, physical exam, and blood tests to look for a treatable cause of the abnormal heartbeat.



ECG Machine



Echocardiogram

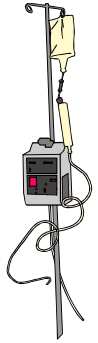
A helpful additional test is an echocardiogram. This test uses sound waves to show images of your heart on a video tape. It is a way to check for structural problems, such as an abnormal mitral valve, which might be causing fibrillations.

How is it treated?

Initial treatment depends on:

- ♦ the severity of your symptoms
- ♦ the apparent cause of the fibrillation
- ♦ your history of heart problems or stroke.

If the fibrillation is new and is causing severe symptoms, you may be treated with cardioversion (electrical shock). (First you will be given a mild anesthetic.) The electrical shock quickly causes your heart to begin beating normally again.



If your symptoms are mild, at first you may be given medication by mouth or through a vein. If the medication does not convert the heart rhythm to normal within a day or so, your doctor may try electrical cardioversion. This is usually very successful.

Thinning of the blood (anticoagulation) is very important to prevent strokes in atrial fibrillation. Usually your doctor will prescribe an anticoagulant before trying to convert the rhythm to normal.

If the underlying cause of your fibrillation is treatable, treatment of the problem usually converts the rhythm to normal. Otherwise, long-term use of medication may be necessary to control your heart rate. You should limit intake of stimulants such as caffeine and alcohol.

What are the complications?

The most serious complication of atrial fibrillation is a stroke caused by a blood clot in the brain. When the flow of blood slows down in the fibrillating atrium, the blood may form a clot. Clots may then travel in the bloodstream to the brain, where they can block blood flow to a part of the brain and cause a stroke.

If you continue to have atrial fibrillation despite treatment, you are at a greater risk for stroke. This is especially true if you have other heart disease or a certain type of artificial heart valve. In this case you will need to take an anticoagulant (blood thinner) to reduce the risk of clot formation and stroke.

How do I care for someone with atrial fibrillation?

Two important aspects of caring for someone with atrial fibrillation are:

- ♦ Make sure he or she takes the prescribed medications properly.
- ♦ If he or she is taking anticoagulants, be certain that follow-up blood tests are done to check on the level of anticoagulant in the blood.



Report promptly to the health care provider any recurring or new symptoms, such as episodes of falling or fainting. In certain situations a pacemaker may be recommended to try to control these symptoms.

How do I prevent atrial fibrillation?

It can only be prevented by maintaining your heart in as healthy a condition as possible. If you have any form of heart disease, follow your health care provider's recommendations closely.

Developed by McKesson Clinical Reference Systems.

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